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Claims

- 1. Use of xenon or a xenon gas mixture for the preparation of a pharmaceutical composition for treating (a) aberrant or undesired apoptosis or (b) a disease associated with aberrant apoptosis.
- 2. Use according to claim 1 for preventing or reducing cellular damage of tissue or organs to be transplanted.
- 3. Use according to claim for preventing or reducing apoptotic cell death after eye laser surgery.
- 4. Use according to claim 1 for protecting endothelial cells of the intestine in sepsis.
- 5. Use according to any one of claims 1 to 4 wherein the pharmaceutical preparation contains 5 to 90% by volume of xenon.
- 6. Use according to claim 5 wherein the pharmaceutical preparation contains 5 to 30% by volume of xenon.
- 7. Use according to any one of claims 1 to 6 wherein the pharmaceutical preparation additionally contains oxygen, nitrogen and/or air.
- 8. Use according to any of claims 1 to 6 wherein the pharmaceutical preparation additionally contains helium, NO, CO_2 , other gaseous compounds and/or inhalable medicaments.
- 9. Use according to claim 5 wherein the pharmaceutical preparation has a ratio of xenon to oxygen of 80 to 20% by volume.

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10. A method of preparing a pharmaceutical preparation by mixing xenon with another gas harmless to humans.

11. The method of claim 10 wherein xenon is mixed with an oxygen-containing gas.